IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of:

Susumu HONMA et al.

Application No.: 09/836,271

Filed: April 18, 2001   Docket No.: 109295

For: DATA INPUT FORM GENERATION SYSTEM, DATA INPUT FORM
         GENERATION METHOD, AND COMPUTER-READABLE RECORDING
         MEDIUM

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Technology Center 2100

BRIEF ON APPEAL

Appeal from Group 2172

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I.   INTRODUCTION

This is an Appeal from a final Office Action mailed September 11, 2003 finally rejecting claims 1-15. No claims are allowed.

A.   Real Party In Interest

The real party in interest for this Appeal in the present application is Fuji Xerox Co., Ltd., by way of an Assignment recorded at Reel 011721, Frame 0111.

B.   Statement of Related Appeals and Interferences

There are presently no appeals or interferences, known to Appellant, Appellant's representative or the Assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

C.   Status of Claims

Claims 1-15 are pending. Claims 1-15 stand finally rejected and are on appeal.

D.   Status of Amendments

There are no amendments.

II.   SUMMARY OF THE REJECTION AND APPLIED REFERENCES

A.   The Invention

The present invention relates to a data input form generation system for generating data input forms such as business forms, a data input form generation method, and a computer-readable recording medium.

A data input form generation system of the present invention has a data input form acceptance part for accepting input of a data input form including a table, a table extraction part for extracting the table from the data input form accepted by the data input form acceptance part, a database defining part for defining a database based on the table extracted by the table extraction part, and a data input form generation part for generating a database-related data input form related with the database by relating the table included in the data

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input form accepted by the data input form acceptance part with the database defined by the database defining part.

A data input form generation method of the present invention has a data input form acceptance step for accepting input of a data input form including a table, a table extraction step for extracting the table from the data input form accepted in the data input form acceptance step, a database defining step for defining a database based on the table extracted by the table extraction step, and a data input form generation step for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance step with the database defined in the database defining step.

A data input form generation system 10 according to one embodiment has, as shown in FIG. 1, a data input form acceptance unit 12, a table extraction unit 14, a database defining unit 16, and a data input form generation unit 18.

The data input form acceptance unit 12 may accept the input of a data input form by receiving a data input form transmitted through a network and store the data input form in a storage unit, not shown. Such a data input form may be a data input form constructed as electronic document data created with a word processor, and, as shown in FIG. 2, includes a character string 1a such as a title or notes and a table 1b as a part for inputting data actually. The data input form acceptance unit 12 accepts the input of the data input form 1 constructed as electronic document data, but may also accept the input of a data input form recorded onto recording paper. The input of the data input form recorded onto recording paper is accepted so as to easily generate the database-related data input form 3 related with the database from a data input form created and printed out with a word processor or a data input form written by hand. As a result, the convenience of the data input form generation system can be improved. In this case, it is preferred to read the data input form recorded onto recording

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paper with a scanner and to convert the read data input form to electronic document data once. The read data input form is converted to electronic document data once to subsequently perform the same processing as that explained in the embodiment described above.

A data input form 1 may include a drawing as well as the character string 1a and the table 1b. The data input form constructed as the electronic document data also includes a Web page described with HTML.

The table extraction unit 14 extracts a table from the data input form accepted by the data input form acceptance unit 12. More specifically, the table extraction unit 14 analyzes layout of the data input form accepted by the data input form acceptance unit 12, and extracts a table included in the data input form. When the data input form accepted by the data input form acceptance unit 12 is the data input form 1 as shown in FIG. 2, the table extraction unit 14 extracts the table 1b from the data input form 1.

The database defining unit 16 defines a database based on the table extracted by the table extraction unit 14. The database defining unit 16 defines a database having, as a field name, each data piece included in the first-row cell of the table extracted by the table extraction unit 14. For example, when the data input form accepted by the data input form acceptance unit 12 is the data input form 1 as shown in FIG. 2, the table 1b included in the data input form 1 has two rows and three columns, data included in the first-row three cells of the table 1b being a "name", "address", and "phone number", respectively. In this case, the database defining unit 16 has, as a field name, a "name", "address", or "phone number" being data included in the first-row three cells of the table 1b, and defines a database having one record including the "name", "address", and "phone number" (more specifically, a relational database). In other words, the database defined by the database defining unit 16 is a database

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2 having the construction as shown in FIG. 3. Data pieces included in each filed of the

database 2 have not been present yet.

The data input form generation unit 18 generates a database-related data input form

related with the database by relating the table included in the data input form accepted by the

data input form acceptance unit 12 with the database defined by the database defining unit 16.

For example, the data input form generation unit 18 generates a database-related data input

form 3 as shown in FIG. 4 when the data input form 1 as shown in FIG. 2 is accepted by the

data input form acceptance unit 12. The database-related data input form 3 generated by the

data input form generation unit 18 is the same in appearance (except for a difference in form

such as font or margin) as compared with the data input form 1 accepted by the data input

form acceptance unit 12, as shown in FIG. 4. In other words, the database-related data input

form 3 generated by the data input form generation unit 18 includes a character string 3a

similar to the character string 1a included in the data input form 1 accepted by the data input

form acceptance unit 12, and also includes a table 3b similar to the table 1b included in the

data input form 1 accepted by the data input form acceptance unit 12. However, the table 3b

included in the database-related data input form 3 generated by the data input form generation

unit 18 is different from the table 1b included in the data input form 1 accepted by the data

input form acceptance unit 12 and is related with the database 2 defined by the database

defining unit 16. When data is inputted to the table 3b included in the database-related data

input form 3 generated by the data input form generation unit 18, such data is inputted to each

field of the database 2 at the same time.

FIG. 5 is a flowchart showing the operation of a data input form generation system.

When the data input form generation system 10 is used to generate the database-

related data input form 3 related with the database, the input of the data input form 1 (not

related with the database) is first accepted by the data input form acceptance unit 12 (S10).

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The data input form 1 transmitted from the user of the data input form generation system 10 is received by the data input form acceptance unit 12 and stored in a storage unit. Such a data input form may be a data input form constructed as electronic document data created with a word processor, and, as shown in FIG. 2, may include a character string 1a such as a title or notes and the table 1b as a part for inputting data.

When the input of the data input form 1 is accepted by the data input form acceptance unit 12, the table extraction unit 14 extracts the table 1b from the data input form 1 accepted by the data input form acceptance unit 12 (S12). More specifically, the table extraction unit 14 analyzes layout of the data input form 1 accepted by the data input form acceptance unit 12, and extracts the table 1b included in the data input form 1.

When the table extraction unit 14 extracts the table 1b included in the data input form 1, the database defining unit 16 defines the database 2 based on the table 1b extracted by the table extraction unit 14 (S14). The database defining unit 16 defines the database 2 having, as a field name, each data piece included in the first-row cell of the table extracted by the table extraction unit 14. In other words, the table 1b included in the data input form 1 accepted by the data input form acceptance unit 12 has two rows and three columns, as shown in FIG. 2. When each data piece included in the first-row three cells of the table 1b is a "name", "address", or "phone number", the database defining unit 16 has, as a field name, the "name", "address", or "phone number" as data included in the first-row three cells of the table 1b and defines the database 2 having one record including the "name", "address", and "phone number" (more specifically, a relational database). The database 2 defined by the database defining unit 16 has the construction as shown in FIG. 3. Data pieces included in each filed of the database 2 are not yet present.

Applicants also disclose a computer-readable recording medium (hereinafter simply referred to as a recording medium) that causes the change state of magnetic, optical, or

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electric energy in accordance with the described contents of the program, in a reader provided in the hardware resource of a computer, so as to transmit the described contents of the program to the reader in a form of a signal responded thereto. Such a recording medium corresponds to, for example, a magnetic disk, an optical disk, a CD-ROM, and a memory incorporated in a computer.

FIG. 8 is a block diagram of a recording medium. As shown in FIG. 8, a recording medium 20 is provided with a program region 20a for recording a program, this program region 20a recording a data input form generation program 22. The data input form generation program 22 has a main module 22a for controlling processes, a data input form acceptance module 22b for accepting the input of the data input form 1 including the table 1b, a table extract module 22c for extracting the table 1b from the data input form 1 accepted by operating the data input form acceptance module 22a, a database define module 22d for defining the database 2 based on the table 1b extracted by operating the table extract module 22c, and a data input form generation module 22e for generating the database-related data input form 3 related with the database 2 by relating the table 1b included in the data input form 1 accepted by operating the data input form acceptance module 22b with the database 2 defined by operating the database define module 22d. The respective functions realized by operating the data input form acceptance module 22b, the table extract module 22c, the database define module 22d, and the data input form generation module 22e, respectively, are similar to the respective functions of the data input form acceptance unit 12, the table extraction unit 14, the database defining unit 16, and the data input form generation unit 18 of the data input form generation system 10.

FIG. 9 is a block diagram of a computer system for executing the data input form generation program 22 recorded onto the recording medium 20. FIG. 10 is a perspective view of a computer for executing the data input form generation program 22 recorded onto

the recording medium 20. As shown in FIGS. 9 and 10, a computer 30 is provided with a

reader 32, an operating system (OS)-resident working memory (RAM) 36, a display 38 as a

display part, a mouse 40 and a keyboard 42 as an input part, a printer 46 for providing

printout of a data input form, and a CPU 48 for controlling execution of the data input form

generation program 22. When the recording medium 20 is inserted into the reader 32,

information recorded onto the recording medium 20 can be accessed from the reader 32. The

data input form generation program 22 recorded onto the program region 20a of the recording

medium 20 can be executed by the computer 30.

B.   The Claims

The claims are divided into three different statutory categories of invention. Claims 1-

5 concern a system or machine. Claims 6-10 concern a method. Claims 11-15 concern an

article of manufacture.

System claims 1-5 recite a data input form acceptance means, a table extraction

means, database defining means for defining a database based on the table extracted by the

table extraction means, and data input from generation means that relates the table included

in the data input form accepted by the data input form acceptance means with the database

defined by the database defining means.

Method claims 6-10 concern a data input form generation method comprising

accepting input of a data input form including a table; extracting the table from the accepted

data input form; defining a database based on the extracted table; and generating a database-

related data input form related with the database by relating the table included in the accepted

data input form with the defined database.

Article of manufacture claims 11-16 concern a computer-readable recording medium

having a program that makes a computer execute the steps of accepting input of a data input

form including a table; extracting the table from the accepted data input form; defining a

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database based on the extracted table; and generating a database-related data input form related with the database by relating the table included in the accepted data input form with the defined database.

C.   The Rejection

The final Office Action asserts that Rheaume discloses the features of claims 1, 6 and 11 except that Rheaume does not explicitly disclose "data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form acceptance means with the database defined by the database defining means." To make up for this admitted deficiency of Rheaume, the Office Action asserts that Tamano discloses data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means, referencing col. 3, lines 25-30 and 50-57 of Tamano.

The Office Action then concludes that it would be "obvious to modify the teachings of Rheaume such that an input form can be used to insert data into the generated database. One of ordinary skill in the art would have been motivated to do this because it would allow a user [to] quickly input new value into the database."

For the reasons detailed below, it is respectfully submitted this rejection is improper and should be reversed.

D.   U.S. Patent 6,247,018 to Rheaume

Rheaume discloses a method for automatically processing a file, such as a web page or an ASCII file, to treat the file as a database with one or more database tables. For example, Rheaume automatically processes an HTML page or group of related HTML pages in an HTML frameset in order to identify data and treat the data contained within the HTML file(s) as a database with one or more database management system tables. Also, in

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Rheaume, an ASCII file can be processed to identify data and treat the data contained within the ASCII file as a database with one or more database management system tables.

Rheaume can, for example, retrieve an HTML page or a group of related HTML pages in an HTML frameset from a user specified URL or from a disk file. If the source HTML document contains an HTML <FRAMESET> (e.g., a group of HTML pages each loaded into a separate frame in the browser), Rheaume retrieves the HTML page associated with each frame and thus treats the entire frameset as a single database, scans each HTML page for any HTML tables, and translates each HTML table into a database table in a database representation of the HTML page (e.g., as a DB2 database management system representation of the HTML page).

In Rheaume, processing is performed on each HTML table identified in an HTML page so that the HTML table can be used in a database representation. For example, if the HTML table contains an HTML <CAPTION> tag, then the caption text is used to generate the database table name. If the HTML table contains HTML <TH> tags (e.g., table header tags), then the table header text is used to generate the database table column names. If the HTML table contains <ROW SPAN> or <COL SPAN> tags (e.g., a label applied to multiple rows or columns as a category label), then the text value of the cell is replicated over the <ROW SPAN> rows or the <COL SPAN> columns to create tables which are consistent with relational database tables. All HTML escape sequences are translated to their corresponding ASCII representations. Any carriage returns and/or line feeds are, for example, removed from the data in the HTML table. Also, all HTML tags are removed from the data except for the
 (e.g., break) tag which is translated into, for example, a <CR> <LF> line break in the data. Leading and trailing white spaces are removed from the data in the HTML table and all internal white spaces are compressed into a single space.

As a result of the processing of the data in the HTML table, the underlying data in the HTML table can be identified and extracted for inclusion in a database representing the underlying data.

Also, in Rheaume, ASCII files can also be parsed to identify data blocks to be represented as a database table.

E.   U.S. Patent 5,930,799 to Tamano

Tamano discloses a method for creating a database for electronic storage and management of contents recorded on a form (or application), a method for inputting data to the created database and a method for outputting the contents inputted to the created database.

Tamano provides a database creating method in which the data structure of a database can be defined even if information concerning the data structure of the database is not inputted.

Tamano also provided a method for inputting the recorded contents of a free formatted application to a database, the free formatted application having no regulation concerning the format and the number of characters entered in each cell in the case where characters are entered in the application or form.

Tamano also provided a database creating method in which a display screen for inputting data to a database can be generated even if the data structure of the database is predefined.

Tamano also provides a database creating method suitable for the reuse of information which defines a standardized data structure for a database.

Tamano also provide a database inputting method suitable for the input of entry data in a form to a database.

In order to provide the aforementioned features, in a first step, referential information is prepared beforehand for each of item name represented on a CRF (Case Report Form). The referential information includes an item attribute concerning the item name, a parts attribute for controlling a part which is an input/output area forming a display screen for inputting data to a database, and a data attribute such as field name and data type to which the reference is made when a table is defined in the database.

In a second step, on the basis of an input from a user for image information of CRF inputted beforehand, there is generated link information which includes positional information for uniquely distinguishing a displaying position of a part on the image information and sub referential information prepared on the basis of the referential information for uniquely distinguishing a field of the database.

In a third step, on the basis of the parts attribute, the item attribute and the positional information, parts are displayed on the image information displayed on a display device.

In a fourth step, a table is defined in the database on the basis of the data attribute included in the link information.

In a fifth step, a display screen for input to the database is displayed on the basis of the previously inputted CRF image information and the link information.

In a sixth step, on the basis of the parts attribute and the data attribute, data inputted from the input display screen is stored into the database table defined in the fourth step.

III. THE ISSUES ON APPEAL

Whether, under 35 U.S.C. §103(a), claims 1-5, 6-10 and 11-15 would have been obvious over Rheaume in view of Tamano.

IV. GROUPING THE CLAIMS ON APPEAL

All claims do not stand or fall together.

Group I: Claims 1-5.

Group II: Claims 6-10.

Group III: Claims 11-15

Claims 2-5 depend from claim 1, claims 7-10 depend from claim 6 and claims 12-15 depend from claim 11.

Claims 1-5 are patentably distinct from claims 6-10 and claims 11-15 because they recite a different statutory category of invention than do claims 6-10 and claims 11-15.

Claims 6-10 are patentably distinct from claims 1-5 and 11-15 because they recite a different statutory category of invention than do claims 1-5 and 11-15.

Claims 11-15 are patentably distinct from claims 1-5 and 6-10 because they recite a different statutory category of invention than do claims 1-5 and 6-10.

V.   ARGUMENT

A.   The Law (35 USC §103(a) (Obviousness))

The Supreme Court in Graham v. John Deere, 383 U.S. 1 at 18, 148 USPQ 459 at 467 (1966), set forth the basic test for patentability under 35 U.S.C. §103:

> Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unresolved need, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter to be patented.

Moreover, in In re Ehrreich and Avery, 200 USPQ 504, 509-510 (CCPA 1979), the Court of Customs and Patent Appeals further clarified the basic test set forth in Graham v. John Deere:

> We must not here consider a reference in a vacuum, but against the background of the other references of record which may disprove theories and speculations in the reference or reveal previously undiscovered or unappreciated problems. The question in a §103 case is what the references would collectively suggest to one of ordinary skill in the art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972). It is only by proceeding in this manner that we may fairly determine the scope and

content of the prior art according to the mandate of Graham v. Deere Company, 383 US 1, 17, 148 USPQ 459, 467 (1966). (Emphasis in original.)

Thus, the mere fact that parts of prior art disclosures can be combined does not make the combination obvious unless the prior art also contains something to suggest the desirability of the combination. In re Imperato, 486 F.2d 585 (CCPA 1973).

To imbue one of ordinary skill in the art with knowledge of the invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of hindsight syndrome wherein that which only the inventor taught is used against its teacher. W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1533, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

Further, analyzing the claimed invention as a whole in view of the prior art as a whole, one indicium of nonobviousness is a "teaching away" from the claimed invention by the prior art at the time the invention was made. See U.S. v. Adams, 148 USPQ 479 (1966). Essentially, teaching away from a claimed invention is a per se demonstration of lack of prima facie obviousness.

Where the prior art provides "only general guidance and is not specific as to the particular form of the invention or how to achieve it, [such a suggestion] may make an approach 'obvious to try,' but it does not make the invention obvious." Ex parte Obukowicz, 27 USPQ2d, 1063, 1065 (U.S. Patent and Trademark Office Board of Appeals and Interferences, 1992) and In re O'Farrell, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

Further, in In re Wright, 848 F.2d 1216, 6 USPQ2d 1959 (Fed. Cir. 1988), the Federal Circuit stated:

> Factors including unexpected results, new features, solution of a different problem, novel properties are all considerations in the determination of obviousness...

These secondary considerations (objective evidence of non-obviousness) as outlined in

Graham v. John Deere and further characterized in In re Wright must be evaluated before

reaching an ultimate decision under 35 U.S.C. §103.

The test for obviousness is what the combined teachings would have suggested to one

of ordinary skill in the art. See, In re Young, 927 F.2d 588, 591, 18 USPQ2d 1989, 1091

(Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

More specifically, as stated by the court in Keller, 642 F.2d at 425, 208 USPQ at 881, the test

for obviousness is not whether the features of a secondary reference may be bodily

incorporated into the structure of the primary references; nor is it that the claimed invention

must be expressly suggested in one or all of the references. Rather, the test is what the

combined teachings of the references would have suggested to those of ordinary skill in the

art. Moreover, the artisan is not compelled to blindly adopt every single aspect of the

teachings of any one reference without the exercise of independent judgment, see Lear

Siegler, Inc. v. Aeroquip Corp., 733 F.2d 881, 889, 221 USPQ 1025, 1032 (Fed. Cir. 1984).

With regard to motivation to combine the references used in the rejection of

appellant's claims, while there must be some teaching, reason, suggestion or motivation to

combine existing elements to produce the claimed device, it is not necessary that the cited

references or prior art specifically suggest making the combination. See, B.F. Goodrich Co.

v. Aircraft Braking Systems Corp., 72 F.3d 1577, 1583, 37 USPQ2d 1314, 1319 (Fed. Cir

1996) and In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988).

Rather, the test for obviousness is what the combined teachings of the references would have

suggested to one of ordinary skill in the art.

The Office Action must provide proper motivation to combine the teaching of

different references. The first requirement of proper motivation is that a showing of a

suggestion, teaching, or motivation to combine the prior art references is an "essential

evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This evidence may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. See Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). However, the suggestion more often comes from the teachings of the pertinent references. See In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459(Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See Dembiczak, 175 F.3d at 1000, 50 USPQ2d at 1617.

The Office Action must also demonstrate that modifying one reference in view of another reference is even feasible. Moreover, the case law requires that for motivation to be proper, showing that something is feasible is not enough. Just because something is feasible does not mean that it is desirable or that one of ordinary skill in the art would be motivated to do what is feasible. See Winner International Royalty Corp. v. Wang, 53 USPQ2d 1580 (Fed. Cir. 2000) which points out that motivation to combine references requires a showing not just of feasibility, but also of desirability.

In Tec Air Inc. v. Denso Manufacturing Michigan Inc., 52 USPQ2d 1294 (Fed. Cir. 1999), the Court of Appeals for the Federal Circuit stated that there is no suggestion to combine relevant teachings from different references if a reference teaches away from its combination with another source. The court also stated that a reference may be said to teach away when a person of ordinary skill in the art, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.

Additionally, in In re Braat, 16 USPQ2d 1812 (Fed. Cir. 1990) (unpublished), the Court of Appeals for the Federal Circuit reversed a decision by the PTO Board of Appeals and Interferences, stating that the reference upon which the obviousness of claim 1 was based taught away from the claimed invention, and that "[O]ne important indicium of non-obviousness is "teaching away" from the claimed invention by the prior art," citing In re Dow Chemical Co., 5 USPQ2d 1529, 1532 (Fed. Cir., 1988).

Moreover, a factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusionary statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

B.   Claims 1-5, 6-10 and 11-15 Are Not Obvious In View of Rheaume and Tamano

As clearly stated in the preamble of claim 1, claims 1-5 are clearly directed to a "data input form generation system." Rheaume is clearly not directed to a "data input form generation system."

As clearly stated in the preamble of claim 6, claims 6-10 are clearly directed to a data input form generation method. Rheaume is clearly not directed to a "data input form generation method."

As clearly stated in the preamble of claim 11, claims 11-15 are clearly directed to a computer readable recording medium recording thereon a program that makes a computer execute a data input form generation method. Rheaume is clearly not directed to a computer readable recording medium recording thereon a program that makes a computer execute a data input form generation method.

Rheaume does not disclose or suggest generating data input forms. Instead, Rheaume discloses extracting data from HTML web pages, regardless of the form in which the data is presented in those web pages. Rheaume then stores the extracted data in the form of a

database "so that the data can be manipulated in the particular manner desired by the user, thus freeing the user from the format provided by the web site" - see col. 1, lines 45-48.

In col. 2, lines 35-38, Rheaume discloses that "[A]s a result of the processing of the data in the HTML table, the underlying data in the HTML table can be identified and extracted for including in a database representing the underlying data." (emphasis added).

Rheaume does not disclose that the web pages on which its invention operates contain a data input form, i.e., a form in which data can be input. Accordingly, Rheaume does not disclose a "data form acceptance means for accepting input of a data input form," as recited in claims 1-5, or "accepting input of a data input form including a table."

Rheaume does not extract a table from the data input form accepted by the data input form data acceptance means at least because Rheaume does not accept a data input form. Additionally, Rheaume explicitly discloses that it extracts underlying data from tables and puts that data in relational database tables. This is not extracting a table, and is not what is recited in independent claims 1, 6, and 11.

Thus, contrary to the assertions made in the Office Action, Rheaume does not disclose the aforementioned positively recited features of claims 1-15.

In the Advisory Action mailed on December 16, 2003, it is stated that the "Examiner therefore holds that the HTML file disclosed by Rheaume in a data input form that accepts data input in a certain form. For example, a web designer can enter information into the HTML table according to the table layout specified. Therefore, the Examiner holds that the HTML and the table extracted to build a relational database is equivalent to the claimed data input form and data defining means based on the data contained within the HTML file."

Applicants are presented with this new holding well after they have replied to the Final Rejection, and the Advisory Action fails to explain how this holding affects the Final Rejection because it is just stated without reference to the Final Rejection. It is procedurally

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improper to modify the Final Rejection in the Advisory Action but that is apparently what has happened here.

Accordingly, in order to be fully responsive to the outstanding Office Actions (both the final Office Action and the Advisory Action), Applicants respectfully submit that the doctrine of equivalents has nothing to do with patentability and whether what is being claimed is disclosed by Rheaume. The doctrine of equivalents only applies to patent infringement, a wholly different issue than patentability over applied art. Moreover, the asserted equivalence has not been demonstrated in any way to be relevant to the rejection, nor has the nature of the alleged equivalence, nor the degree of equivalence been stated. Nor has any objective evidence, including case law, to support this unique basis for the rejection been presented. In effect, Applicants have not been presented with a cogent reason why this "equivalent" holding has been made or what it has to do with the outstanding rejection of the claims.

Moreover, it is fundamental that anticipation of a claimed feature may <u>not</u> be shown by equivalents, which is a legal theory pertinent to obviousness but not to anticipation. See, in this regard, <u>Richardson v. Suzuki Motor Co., Ltd.</u>, 9 USPQ2d 1913 (Fed. Cir. 1989). The outstanding Office Actions are alleging that Rheaume anticipates several features recited in claims 1, 6 and 11, and is supporting a number of these allegations with this fundamentally flawed rationale that the features are anticipated by equivalent features to those which are claimed.

Applicants respectfully submit that this "equivalent" rejection is improper because it is based on the same incorrect legal theory rejected in <u>Richardson</u>, supra, where the appellate court determined that a jury had been erroneously instructed by a trial court that anticipation may be shown by equivalents.

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Applicants also dispute the validity of the asserted equivalence because an HTML file is simply a file that uses hypertext markup language, which is made up of simple codes enclosed in angle brackets that control formatting of the text in the file and, therefore, that determine the file's onscreen look.

Moreover, Rheaume operates on the HTML file in order to identify data and treat the data contained within the HTML file(s) as a database with one or more database management system tables. Rheaume is simply not concerned with data input form generation means. The holding in the office Action that the HTML and the table extracted to build a relational database is equivalent to the claimed data input form and data defining means based on the data contained within the HTML file, is simply not supported by Rheaume's disclosure, and is contradicted by the express admission in the Final Rejection that "Rheaume does not explicitly disclose[s] 'data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means.'"

Applicants are left to wonder whether this holding in the Advisory Action somehow means that Rheaume inherently discloses "data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means."

If this is what is being alleged in the Final Rejection, and it is not clear that it is what is being alleged, Applicants' respectfully note that inherency requires that what is allegedly inherently disclosed in a reference be necessarily disclosed. Under the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element "is necessarily present in the

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thing described in the reference, and that it would be so recognized by persons of ordinary skill." Cont'l Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (quoting In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

For the aforementioned reasons, Applicants respectfully submit that Rheaume does not disclose, either explicitly or inherently, "data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means."

In an attempt to remedy this (admitted to some degree) deficiency, the Office Action cites and applies Tamano. In this regard, the Examiner "holds" that Tamano relates the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means.

Applicants respectfully disagree. Tamano does not disclose that its data input form includes a table. Instead, Tamano creates a table in the database it creates. There is a big difference between inputting a data input form that includes a table and inputting a form and creating a database table from the data input form.

Applicants also note that Tamano differs significantly from Rheaume. Tamano pertains to a case record database structured as set forth in col. 2, lines 5-36. The Advisory Action takes this assertion by Applicants to be a non-analogous art argument. Actually, Applicants present this argument as evidence of lack of proper motivation to modify Rheaume in view of Tamano, as discussed in detail, below.

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Concerning the issue of motivation to combine Rheaume and Tamano, Applicants respectfully submit that Rheaume has no need of, nor use for, a case record database. Rheaume is directed to "automatically processing" a web page or ASCII file to treat the file as a database. Rheaume does not generate a user input image. On the other hand, Tamano needs user input to generate image information and does generate a user input image. Moreover, unlike Rheaume, Tamano does not perform "automatic processing" to generate a database. Tamano requires input from a user in several steps to create a database and, thus, does not perform "automatic processing" to generate a database.

Additionally, Applicants respectfully submit that Tamano does not disclose "data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means," as recited in independent claims 1, 6 and 11. As noted above, Tamano does not disclose a table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means. Instead, Tamano relates data in the form that is input to its system with the database it defines.

Applicants respectfully submit that both the Rheaume and Tamano references are deficient with respect to features recited in the independent claims, as set forth above. Accordingly, even if these references were properly combined, they would not achieve the claimed invention.

Furthermore, Applicants do not believe that one of ordinary skill in the art would have been motivated to combine the references as asserted in the Office Action. The asserted motivation for combining these two references is to "allow a user [to] quickly input new value into the database."

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The Office Action never explains what the "new value" is or why Rheaume would not already add any "new value" using its disclosed "automatic processing" without any modification. Moreover, as discussed above, Rheaume has no need nor use for the case record database of Tamano. Further, as discussed above, Tamano does not perform "automatic processing" to generate a database, but requires input from a user in several steps to create a database. Rheaume, the primary reference, discloses a method for <u>automatically</u> processing a file.

Thus, Rheaume presumably performs its method quickly. Additionally, Rheaume shows no need for any modification. Furthermore, if the added feature admittedly not in Rheaume is added to Rheaume, the execution of such an added feature would require additional time, thus teaching away from the alleged motivation, i.e., to quickly input new value into the database.

Moreover, the asserted motivation, i.e., "to allow a user to quickly input new value into the database," is a general statement of what appears to be an inherent quality of any computerized database system and is not the specific, detailed evidence needed to provide proper motivation to modify one reference in view of another reference, especially where the two references differ so fundamentally. A showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." <u>C.R. Bard, Inc. v. M3 Sys. Inc.</u>, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This evidence may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. See <u>Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.</u>, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). However, the suggestion more often comes from the teachings of the pertinent references. See <u>In re Rouffet</u>, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998). This showing must be clear and particular, and broad

conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617.

The statement in the Advisory Action that the "Examiner holds that the form disclosed by the Tamano, the HTML table disclosed by Rheaume, and the table/form disclosed by applicant are equivalent" falls into the category of a broad, conclusionary statement about the teaching of two references and do not constitute evidence of proper motivation to combine the teaching of these two references. This statement also equates the prior art teachings with Applicant's teachings and, as such, is prime evidence of combining the teaching of these two references solely on the basis of improper hindsight reconstruction of Applicants' claimed invention based on Applicants' disclosure. One would not be motivated to combine these two references absent Applicants' disclosure being used as a template to guide them. This is an example of improper hindsight reconstruction of the claimed invention.

The statement in the Advisory Action that the "Examiner holds that the form disclosed by the Tamano, the HTML table disclosed by Rheaume, and the table/form disclosed by applicant are equivalent" is speculative at best and is irrelevant to whether the claimed invention is rendered obvious by Rheaume and Tamano.

Lastly, the final Office Action indicates that Applicants do not clearly point out the patentability that they think that the claims present in view of the state of the art disclosed by the references cited. Applicants respectfully disagree.

During patent examination the PTO bears the initial burden of presenting a prima facie case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the applicant is entitled to the patent. However, when a prima facie case is made, the burden shifts to the applicant to come forward with

evidence and/or argument supporting patentability. Patentability vel non is then determined on the entirety of the record, by a preponderance of evidence and weight of argument.

For the detailed, specific reasons stated above, Applicants submit that the PTO has not made out a prima facie case of unpatentability of the claimed invention. Under these circumstances, the burden has not shifted to Applicants to come forward with additional arguments or evidence to support patentability. Nevertheless, Applicants' arguments above not only demonstrate that the Office Action fails to make out a prima facie case of unpatentability of the claimed invention, they also support patentability of the claimed invention over the cited references.

For the aforementioned reasons, Applicants respectfully submit that claims 1-5, 6-10 and 11-15 are not rendered obvious by either Rheaume or Tamano, alone or in combination. Therefore, the rejection of claims 1-15 under 35 USC §103(a) over Rheaume in view of Tamano is improper and should be reversed.

VI.   REBUTTAL OF ARGUMENTS IN ADVISORY ACTION

The Advisory Action contains the Examiner's rebuttal arguments, a number of which are addressed to some extent above. However, in order to fully respond to those arguments, the following is presented.

In response to the Examiner's holding that the HTML file disclosed by Rheaume is a data input form that accepts input in a certain form, Applicants respectfully point out that there is no explicit disclosure in Rheaume of a data input form that accepts input in a certain form, nor is there an inherent (necessarily) disclosure of this feature. All that is presented in this regard is an allegation unsupported by any objective evidence. Instead of being based on objective evidence of record, this holding is merely a conclusionary statement of the Examiner. Cf., In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

The significance to the claimed invention of the assertion that a web designer can enter information into the HTML table according to the table layout specified is not explained. Moreover, this statement refers to a possibility never addressed by Rheaume, not to what the references actually discloses and is based on improper speculation and hindsight gained from Applicants' disclosure.

The relevance of the holding that "the HTML and the table data extracted to build a relational database is equivalent to the claimed data input form and database defining means based on the data contained in the HTML file" to the patentability of the claimed invention has not been explained, nor is it apparent. As pointed out above, anticipation of a claimed feature cannot be based on equivalents of what is claimed. Moreover, Applicants respectfully disagree with the holding, especially because the nature of the alleged equivalence and the relevance of that equivalence to the patentability of the claimed invention has not been explained nor it is obvious.

The argument in the Advisory Office Action concerning non-analogous art is not relevant because Applicants never argued that Tamano was "non-analogous art" to Rheaume. Rather, Applicants pointed out fundamental differences between these two references and argued that such differences tended to support the conclusion that one of ordinary skill in the art would not have been motivated to modify Rheaume in view of Tamano

The (1) holding that "the form disclosed by Tamano, the HTML table disclosed by Rheaume, and the table/form disclosed by Applicant are equivalent," and the (2) ensuing statement about the disclosure in Applicants' figure 2 that the table is essentially a form, and in view of this disclosure (by Applicants) the entities disclosed by Tamano, Rheaume and Applicants, are used to define a database, using the data contained therein, constitutes a prime example of unfounded speculation and hindsight reconstruction of the claimed invention based on Applicants' own disclosure. Furthermore, the relevance of these alleged equivalents

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to the issue of patentability of the claimed invention is simply not found in the Office Action. Applicants are left to speculate on what the relevance of this holding to the patentability of the claimed invention is.
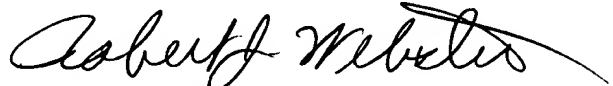
A fair, balanced appraisal of the Final Rejection and the apparent reformulation of that rejection in the Advisory Action based on: certain alleged equivalents among the two applied references in the outstanding rejection, Applicants' disclosure, and the irrelevance of what a web designer might do to the allegedly equivalent features of Rheaume and Tamano, reveals that the basis of the rejection is not only speculative and based on improper hindsight, but is also unclear, seeming to shift from Office action to Office action. This denies Applicants both procedural and substantive due process under the Administrative Procedures Act. See in this regard, In re Zurko, 119 S.Ct. 1816, 50 USPQ2d 1930 (1999), and In re Gartside, 53 USPQ2d 1769 (Fed. Cir. 2000).

VII. CONCLUSION

The Office Action has not made out a prima facie case of obviousness of the claimed

invention for the reasons stated above, and the rejection of claims 1-15 should be reversed.

The Honorable Board is requested to reverse the rejections set forth in the Final

Rejection and to pass this application to issuance.

Respectfully submitted,

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Enclosure:
    Appendix

> DEPOSIT ACCOUNT USE
> AUTHORIZATION
> Please grant any extension
> necessary for entry;
> Charge any fee due to our
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APPENDIX A

CLAIMS:

1. A data input form generation system comprising:

data input form acceptance means for accepting input of a data input form including a table;

table extraction means for extracting the table from the data input form accepted by the data input form acceptance means;

database defining means for defining a database based on the table extracted by the table extraction means; and

data input form generation means for generating a database-related data input form related with the database by relating the table included in the data input form accepted by the data input form acceptance means with the database defined by the database defining means.

2. The data input form generation system according to claim 1, wherein the database defining means has, as a field name of the database, data included in a first-row cell of the table extracted by the table extraction means.

3. The data input form generation system according to claim 1, wherein the database defining means has, as a field name of the database, data included in a first-column cell of the table extracted by the table extraction means.

4. The data input form generation system according to claim 1, wherein the data input form acceptance means accepts input of the data input form configured as electronic document data.

5. The data input form generation system according to claim 1, wherein the data input form acceptance means accepts input of the data input form recorded onto a recording sheet.

6. A data input form generation method comprising:

accepting input of a data input form including a table;

extracting the table from the accepted data input form;

defining a database based on the extracted table; and

generating a database-related data input form related with the database by relating the table included in the accepted data input form with the defined database.

7. The data input form generation method according to claim 6, wherein data included in a first-row cell of the extracted table is held as a field name of the database.

8. The data input form generation method according to claim 6, wherein data included in a first-column cell of the extracted table is held as a field name of the database.

9. The data input form generation method according to claim 6, wherein input of the data input form configured as electronic document data is accepted.

10. The data input form generation method according to claim 6, wherein input of the data input form recorded onto a recording sheet is accepted.

11. A computer-readable recording medium recording thereon a program that makes a computer execute the steps of:

accepting input of a data input form including a table;

extracting the table from the accepted data input form;

defining a database based on the extracted table; and

generating a database-related data input form related with the database by relating the table included in the accepted data input form with the defined database.

12. The computer-readable recording medium according to claim 11, wherein data included in a first-row cell of the extracted table is held as a field name of the database.

13. The computer-readable recording medium according to claim 11, wherein data included in a first-column cell of the extracted table as a field name of the database.

14. The computer-readable recording medium according to claim 11, wherein input of the data input form configured as electronic document data is accepted.

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15. The computer-readable recording medium according to claim 11, wherein input of the data input form recorded onto a recording sheet is accepted.